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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/087,716	03/01/2002	Matthias Oechsner	01P05135US01	6686

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05/07/2003

Siemens Corporation
Intellectual Property Department
186 Wood Avenue South
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EXAMINER

MCNEIL, JENNIFER C

ART UNIT

PAPER NUMBER

1775

DATE MAILED: 05/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/087,716

Applicant(s)

OECHSNER, MATTHIAS

Examiner

Jennifer McNeil

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 August 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 13-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2,3. 6) ☐ Other: _____

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DETAILED ACTION

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-12, drawn to a component, classified in class 428, subclass 702.
- II. Claims 13-20, drawn to a method of fabricating a component, classified in class 427, subclass 252.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product may be made by a materially different process. For instance, the cracks may be formed by laser ablation. Also the method does not require that the cracks extend from respective ones of the plurality of the inclusions to the free surface of the ceramic material. Instead, the method requires only that the cracks be present between the inclusions and the free surface. Therefore, the method may be used to make a materially different article.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

During a telephone conversation with David Maire on April 17, 2003 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-12. Affirmation of this election must be made by applicant in replying to this Office action. Claims 13-20 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named

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inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Specification

The disclosure is objected to because of the following informalities: Please refer to page 2, lines 18-20. There appears to be a fragment of a sentence.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1-4, and 6-11 are rejected under 35 U.S.C. 102(a) as being anticipated by Freling et al (US 6,190,124). Freling teaches a thermal barrier coating on a turbine engine component. The thermal barrier coating is deposited on a substrate (40), and comprises a ceramic layer of 88-99 wt% ceramic powder and about 1-12 wt% aromatic polyester resin. The ceramic may be YSZ (col. 6, lines 37-52). The polyester resin is later burned out of the ceramic layer to produce a porous structure. While Freling does not expressly teach that the thermal barrier coating has voids or inclusions with cracks extending from the inclusion to the surface, it is the position of the examiner that the final product of the thermal barrier coated component has voids with cracks that extend between the void and the surface of the ceramic coating because the ceramic layer is deposited in a conventional manner, and comprises a ceramic with particles having a thermal expansion higher than the ceramic material, which are burned off leaving

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voids. Freling teaches that the ceramic includes polymer (the polyester) particles that are burned off leaving a porous coating. These pores are considered the voids left after the polymer is burned off, and it is fully expected that cracks would form. The polyester is considered to have a thermal expansion greater than the zirconia, as disclosed by applicant in the instant specification (page 4, lines 9-11).

Applicants can be required to prove that prior art products do not necessarily of inherently possess characteristics of claimed products where claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes; burden of proof is on applicants where rejection based on inherency under 35 U.S.C 102 or on prima facie obviousness under 35 U.S.C 103, jointly or alternatively, and Patent and Trademark Office's inability to manufacture products or to obtain and compare prior art products evidences fairness of this rejection, (*In re Best, Bolton, and Shaw*, 195 USPQ 431 (CCPA 1977)).

Claims 1, 2, 4, 5, 7, 8, 10, and 12 are rejected under 35 U.S.C. 102(a) as being anticipated by Seals et al (US 6,071,628). Seals teaches a thermal barrier coating for an alloy system in a turbine engine component. The coating is deposited onto a substrate (3) and comprises hollow ceramic particles in a matrix. The matrix is preferably YSZ, and the hollow particles may include silica. Silica has a higher coefficient of thermal expansion than zirconia (approximately 22 and 9, respectively). Seals does not expressly teach that cracks extend from the hollow particles to the free surface, but does recognize that the layer has high porosity and microcracks (col. 5, lines 35-40). It is the position of the examiner that the final product of the thermal barrier coated component has cracks that extend between the void and the surface of the ceramic coating, because the ceramic layer is deposited in a conventional manner, and comprises a ceramic with particles having a thermal expansion higher than the ceramic material.

Applicants can be required to prove that prior art products do not necessarily of inherently possess characteristics of claimed products where claimed and prior art products are identical or

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substantially identical, or are produced by identical or substantially identical processes; burden of proof is on applicants where rejection based on inherency under 35 U.S.C 102 or on prima facie obviousness under 35 U.S.C 103, jointly or alternatively, and Patent and Trademark Office's inability to manufacture products or to obtain and compare prior art products evidences fairness of this rejection, (*In re Best, Bolton, and Shaw*, 195 USPQ 431 (CCPA 1977)).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer McNeil whose telephone number is 703-305-0553. The examiner can normally be reached on Monday through Friday, 9:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah Jones can be reached on 703-308-3822. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



JCM
May 3, 2003

Jennifer McNeil
Examiner
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